



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,493	02/06/2004	Frank Litjens	120465-3	6639

25743 7590 05/03/2006

GENERAL ELECTRIC COMPANY
GE PLASTICS
ONE PLASTICS AVENUE
PITTSFIELD, MA 01201

EXAMINER

MCCREARY, LEONARD

ART UNIT

PAPER NUMBER

3616

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,493

Applicant(s)

LITJENS ET AL.

Examiner

Leonard J. McCreary, Jr.

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/6/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 and 9-14 stand rejected under 35 U.S.C. 102(b) as being anticipated by EP 588,176 to Hongo et al. Hongo discloses a pad for use in an air bag device comprising the following:

- a. An instrument panel (page 2, line 4) comprising: a thermoplastic base substrate 13 (page 2, lines 5-6) having a first surface and a second surface; at least one tear seam notch 19 formed into said first surface of said base substrate; at least one consolidated area 19, 118 formed into said second surface of said base substrate, said at least one consolidated area aligned with said at least one tear seam notch; at least one hinge area H comprising an area of low consolidation wherein a thickness of said base substrate at said low consolidation area is greater than a thickness of said base substrate at said at least one consolidation area, said at least one tear seam notch and said at least one hinge area defining at least one airbag door (Fig. 3) (claim 1.)
- b. A width of said at least one consolidated area is equal to or greater than a width of said at least one tear seam notch (Fig. 2) (claims 2, 11.)

- c. Each consolidation area comprises a transition portion located around the periphery of each consolidation area (Fig. 2) (claims 3, 12.)
- d. Said transition portion comprises a radius of curvature (Fig. 2) (claims 4, 13.)
- e. A base substrate 4 is compression molded into a predetermined shape of said instrument panel (Figs. 1-3) (claims 5, 14.)
- f. A thickness of said base substrate at said hinge low consolidation area is greater than a thickness of said base substrate at an area adjacent said hinge area (Fig. 1) (claim 9.)
- g. An instrument panel and an airbag 15, said air bag positioned adjacent said instrument panel (Fig. 1), said instrument panel comprising: a thermoplastic base substrate having a first surface and a second surface, said air bag positioned adjacent said second surface of said base substrate; at least one tear seam notch formed into said first surface of said base substrate; at least one consolidated area formed into said second surface of said base substrate, said at least one consolidated area aligned with said at least one tear seam notch; at least one hinge area comprising an area of low consolidation wherein a thickness of said base substrate at said low consolidation area is greater than a thickness of said base substrate at said at least one consolidation area, said at least one tear seam notch and said at least one hinge area defining at least one airbag door, said tear seam notch configured to open when said airbag deploys permitting said airbag to deploy through said instrument panel (claim 10.)

Art Unit: 3616

3. Re claims 1, 5, 10, and 14, the method of forming the apparatus is not germane to the issue of patentability of the apparatus itself. Therefore, the limitations of "pressed" and "compression molded" have not been given patentable weight since those limitations do not impart a structural difference from an apparatus that is molded using comparable known processes widely used in the automotive industry, such as injection molding and vacuum molding.

4. Claims 17 and 18 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 5,728,342 to Wirt et al. Wirt discloses a method of making an invisible instrument panel airbag cover door comprising:

h. An instrument panel 14 comprising: a thermoplastic base substrate 46 having a first surface 40 and a second surface 42; an intermediate layer 46 adjacent said first surface of said base substrate, said intermediate layer comprising a resilient material; an outer layer 48 adjacent said intermediate layer; at least one airbag door 20 defined by at least one tear seam notch 28 formed into said base substrate and at least one hinge area 32 comprising an area of low consolidation in said base substrate, said at least one airbag door not visible through said outer layer before an airbag deployment causes said at least one airbag door to open (Fig. 6) (claim 17.)

i. At least one tear seam notch is formed into said first surface of said base substrate (claim 18.)

Art Unit: 3616

5. Re claims 17 and 18, the method of forming the apparatus is not germane to the issue of patentability of the apparatus itself. Therefore, the limitations of "pressed" and "compression molded" have not been given patentable weight since those limitations do not impart a structural difference from an apparatus that is molded using comparable known processes widely used in the automotive industry, such as injection molding and vacuum molding.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 22-25, and 29-30 stand rejected under 35 U.S.C. 103(a) as being unpatentable over EP 588,176 to Hongo et al. in view of GB 2,263,667 to Karlsson et al. The disclosure of Hongo is discussed above. Hongo does not teach compression molding. Karlsson discloses a method of manufacturing covers for vehicle airbags and teaches compression molding.

Re claim 22-25 and 29-30, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the air bag pad of Hongo to include the compression molding method of manufacture as taught by Karlsson so as to incorporate reinforcing fibers into the thermoplastic to impart greater strength to the cover (page 2, lines 20-26.)

8. Claims 6-8 and 15-16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over EP 588,176 to Hongo et al. in view of U.S. 5,728,342 to Wirt et al. The disclosure of Hongo is discussed above. Hongo further discloses multiple layers, as shown in Figs. 4 and 6, but Hongo does not teach an intermediate and outer layer as claimed. Wirt discloses a method of manufacturing an invisible instrument panel airbag door and teaches the following:

- j. An intermediate layer 46 adjacent said first surface of said base substrate 38, said intermediate layer comprising a resilient material (column 4, line 29) (claims 6, 15, 26.)
- k. The resilient material comprises a foam material (column 4, line 29) (claim 7.)
- l. An outer layer 48 adjacent said intermediate layer (claim 8.)
- m. An outer layer 48 adjacent said intermediate layer, said at least one tear seam notch 28 is not visible through said outer layer before deployment of said airbag (Fig. 6) (claim 16.)

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the airbag pad of Hongo by constructing the cover of multiple layers including a resilient foam intermediate layer and an outer finish layer to hide tear seams as taught by Wirt so as to improve the overall aesthetics of the cover (column 1, lines 9-14.)

Art Unit: 3616

Claims 17-21, 26-28, and 31-37 stand rejected under 35 U.S.C. 103(a) as being unpatentable over EP 588,176 to Hongo et al. in view of GB 2,263,667 to Karlsson et al., and further in view of U.S. 5,728,342 to Wirt et al. The disclosures of Hongo, Karlsson, and Wirt are discussed above. Hongo does not teach compression molding the cover, nor the use of an intermediate or an outer layer as claimed, nor a hidden tear seam. Karlsson discloses a method of manufacturing an airbag cover and teaches a base substrate 4 is compression molded into a predetermined shape of said instrument panel (Figs. 1-3) so as to incorporate reinforcing fibers into the thermoplastic to impart greater strength to the cover (page 2, lines 20-26.) Wirt discloses a cover for an airbag and teaches the following in order to improve the aesthetic appearance and feel of an instrument panel (column 1, lines 9-14):

- n. An intermediate layer 46 adjacent said first surface of said base substrate 6, said intermediate layer comprising a resilient material (column 4, line 34.)
- o. The resilient material comprises a foam material (column 4, line 34.)
- p. An outer layer 48 adjacent said intermediate layer.
- q. An outer layer 48 adjacent said intermediate layer, said at least one tear seam notch 28 is not visible through said outer layer before deployment of said airbag (Fig. 6.)

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the airbag pad of Hongo to include the compression molding method of manufacture as taught by Karlsson so as to incorporate reinforcement fibers and thus increase the strength of the cover, and further, it would have likewise been obvious to

modify the airbag pad of Hongo by constructing the cover of multiple layers including a resilient foam intermediate layer and an outer trim layer and to hide tear seams as taught by Wirt so as to improve the overall aesthetic feel and appearance, respectively, of the cover.

Conclusion

9. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- r. U.S. 6,726,239 to Teranishi et al. discloses an airbag cover assembly comprising a thermoplastic substrate with a consolidated tear seam, low-consolidation hinges, an intermediate foam layer, and an outer layer that may be free of a visible tear line.
- s. U.S. 2002/0079677 to Skirha et al. discloses an instrument panel with an integral hidden door cover for an airbag comprising three layers including a thermoplastic substrate, an intermediate foam layer, and an outer layer.
- t. U.S. 6,612,607 to Takahashi discloses an airbag door in an instrument panel comprising a thermoplastic substrate with a compression molded tear seam and hinges at low consolidation areas.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. McCreary, Jr. whose telephone number is 571-272-8766. The examiner can normally be reached on 0700-1700 M-F.

Art Unit: 3616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Leonard J. McCreary, Jr.
Examiner
Art Unit 3616



PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600